

# Approval of Material Manufacturers Zulassung von Werkstoffherstellern



This is to certify that the works of  
*Hiermit wird bescheinigt, dass die Firma*

**TRINECKÉ ZELEŽÁRNY, A.S.**  
**PRUMYSLOVÁ 1000**  
**73970 TRINEC-STARÉ MESTO / CZECH REPUBLIC**  
**PRODUCTION SITE: VT-VÁLCOVNA TRUB,**  
**VÝSTAVNÍ 1132, 70602 OSTRAVA-VÍTKOVICE**

has been subjected to an approval test in accordance with the Society's Rules with satisfactory results and is approved for the manufacture of the following products:

*einer Zulassungsprüfung nach den Vorschriften des Germanischen Lloyd unterzogen wurde und für die Herstellung folgender Erzeugnisse zugelassen ist:*

- **Seamless steel pipes for general purpose**  
**in grades GL-R360, GL-R410 and GL-R490**  
**according to GL-Rules for Metallic Materials, Chapter 2, Section 2. B**
- **Seamless steel pipes with specified elevated temperature properties**  
**in grades GL-R360W and Grade B acc. to ASTM A/SA 106**  
**according to GL-Rules for Metallic Materials, Chapter 2, Section 2. C**
- **Seamless structural hollow sections of fine grain steels**  
**in grade S355J2H acc. to EN 10210-1**  
**according to GL-Rules for Metallic Materials, Chapter 2, Section 1. C**

This approval is granted provided that all products intended to be used for the construction of ships or installations classed with Germanischer Lloyd comply in every respect with the Society's Rules and Requirements.

*Die Zulassung erfolgt unter der Voraussetzung, dass alle Erzeugnisse, die zum Bau von Schiffen und Anlagen mit Klasse des Germanischen Lloyd bestimmt sind, die Vorschriften des Germanischen Lloyd in jeder Hinsicht erfüllen.*

Certificate of approval No.  
*Zulassungsbescheinigung Nr.*

WZ 943 HH 7

This Certificate is valid until:  
*Diese Bescheinigung ist gültig bis:*

2017-11-30

Part of the approval is our letter of approval ref. no. 096924-14 of 2014-11-05.  
*Bestandteil der Zulassung ist das Zulassungsanschreiben, Tgb.-Nr. 096924-14 vom 2014-11-05.*

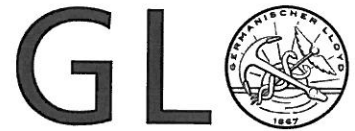
Hamburg, 2014-11-05

**Germanischer Lloyd**

Marcus von Busch

Dr. Eva Junghans

Ref. no.: 096924-14



Manufacturer: Trinecké Zelezárny, a.s.

VT-Válcovna Trub, Výstavní 1132, 70602  
Ostrava-Vítkovice

## List 2: Pipes

| Grade                         | Key   | Supply Condition (1) | max. Wall Thickness, mm | max. Diameter, mm | Remarks   |
|-------------------------------|-------|----------------------|-------------------------|-------------------|---|
| GL-R360                       | NA    | AR                   | 60                      | 406,4             | for all grades listed: outer diameter 60,3 - 406,4 mm |
| GL-R360                       | NA    | N                    | 60                      | 406,4             |   |
| GL-R360W                      | NA    | N                    | 60                      | 406,4             |   |
| GL-R410                       | NA    | AR                   | 60                      | 406,4             |   |
| GL-R410                       | NA    | N                    | 60                      | 406,4             |   |
| GL-R490                       | NA    | AR                   | 60                      | 406,4             |   |
| GL-R490                       | NA    | N                    | 60                      | 406,4             |   |
| Grade B acc. to ASTM A/SA 106 | NA    | N                    | 60                      | 406,4             |   |
| S355J2H acc. to EN 10210-1    | NA-HP | AR                   | 60                      | 406,4             |   |
| S355J2H acc. to EN 10210-1    | NA-HP | N                    | 60                      | 406,4             |   |

Key: -A Austenitic stainless steels GS Welded Pipe -HP Hollow Sections NA Seamless Pipe RF Pipe Fitting

(1):

AC, AF, AR = as cast, as forged, as rolled  
CR = controlled rolled  
F = ferritized  
HF = hot formed  
N = normalized

N+T = normalized + tempered  
Q+T = quenched + tempered  
SH = surface hardened  
S+Q = solution annealed + quenched  
TM = thermomechanically rolled

(2):

CC = continuous casting  
IC = ingot casting

|                          |             |
|--------------------------|-------------|
| TŘINECKÉ ŽELEZÁRNY, a.s. |             |
| Čís. exb.                | Doporuč. č. |
| 10-11-2014               |             |
| uloženo                  |             |
| Kolichěn:                |             |
| Termin                   |             |

**DNV-GL**

DNV GL SE • P.O. Box 11 16 06 • 20416 Hamburg • Germany

Trinecké Zelezárny, a.s.  
 VT-Válcovna Trub, Výstavní 1132, 70602 Ostrava-Vítkovice  
 Attn. Ing. Radim Raszka  
 Prumyslová 1000  
 73970 Trinec-Staré Mesto  
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|                |                |                  |                     |            |
|----------------|----------------|------------------|---------------------|------------|
| Your reference | Your Letter of | Our reference    | Extension           | Date       |
|                |                | 096924-14/EVAJUN | +49 40 3 61 49-7449 | 2014-11-05 |

**Approval of your works for the manufacture of pipes (prolongation)**

Dear Mr. Ing. Radim Raszka,

Thank you for your company's commitment to manufacture products with GL certification.

We refer to our Surveyor's report on the inspection of your works performed on 2014-10-07 and to his confirmation that the results of continuous delivery tests witnessed by him are in full compliance with our Rules for Materials.

Therefore the preconditions for prolongation of approval of your works granted by our letter ref. no. 121677-11 dated 2011-10-20 are complied with.

The material grades, supply conditions and dimensions / weights covered by the approval are indicated in the approval annex.

The manufacturing details covered by the approval are as follows:

1. **Products**  
Hot rolled seamless steel pipes and seamless hollow sections
2. **Manufacturing process**  
Reheating of billets/bars by rotary-hearth furnace, hot rolling by pilger mill of the Mannesmann type (3 stand sizing mill with descaling), heat treatment (only for the normalized condition), finishing (cutting, straightening), non-destructive testing (magnetic leakage + ultrasonic testing)
3. **Prematerial suppliers**  
Only GL-approved material manufacturers of billets and bars
4. **Fabrication welding**  
Not permitted
5. **Particulars**  
Testing of mechanical and technological properties in laboratory of company ENVIFORM, Ostrava

Our approval is granted under provision that all pipes intended to be used for the construction of ships classed with our Society will comply with our Rules in all respects and will be tested in the presence of our Surveyor.



GLAPP0020168641

The quality of your company's manufactured products, within the valid approved scope, contributes to the safety and reputation of GL classed ships.

Your company has been added to the list of approved manufacturers, which is regularly published on the Internet. In order to view the appropriate data start the DNV GL website <http://www.dnvgl.com> , choose

"Maritime", "Exchange & Tools", menu "GL Tools", select "Approval Finder", and then "Manufacturers of Materials".

Enclosed please find our certificate of approval no. **WZ 943 HH 7**, valid until 2017-11-30, as well as the corresponding annex.

We thank you for your cooperation and wish your company every success.

Yours faithfully,

for DNV GL SE



Marcus von Busch



Dr. Eva Junghans